In the Claims:

1. (Currently Amended) A positioning system, comprising:

~~a frame;~~

a table ~~to be positioned with respect to the frame~~ having a surface to retain a workpiece;

a first flexible member that connects said table to a first movable base, the first flexible member being ~~resistant~~ rigid to movement in at least one ~~first~~ degree of freedom perpendicular to the surface, and flexible in other degrees of freedom;

a support structure that ~~connects~~ supports said first movable base ~~to said frame~~; and

at least one magnetic actuator ~~connected to~~ that actuates said first movable base in said ~~first~~ one degree of freedom ~~with respect to said frame~~.

2. (Original) The positioning system of claim 1, comprising at least one additional actuator to adjust the position of said table in at least a second degree of freedom.

3-4. (Canceled)

5. (Original) The positioning system of claim 1, wherein said first movable base comprises a magnet, and said actuator comprises one or more coil assemblies.

6. (Original) The positioning system of claim 5, wherein a first said coil assembly includes a conduit therethrough, said first flexible member positioned in said conduit.

7. (Canceled)

8. (Original) The positioning system of claim 1, said support structure comprising one or more bellows.

9. (Original) The positioning system of claim 1, said support structure comprising one or more springs.

10-33. (Canceled)

34. (New) The positioning system of claim 1, wherein the support structure permits movement of the first movable base in said one degree of freedom.

35. (New) The positioning system of claim 1, wherein the magnetic actuator is an EI core type actuator.

36. (New) The positioning system of claim 35, wherein the first movable base comprises an I component of the EI core type actuator.

37. (New) An exposure apparatus, comprising:

a reticle stage having a surface to retain a reticle;

a first flexible member that connects the reticle stage to a first movable base, the first flexible member being rigid to movement in at least one degree of freedom perpendicular to the surface, and flexible in other degrees of freedom;

a support structure that supports the first movable base; and

at least one magnetic actuator that actuates the first movable base in the one degree of freedom.

38. (New) The positioning system of claim 37, wherein the support structure permits movement of the first movable base in said one degree of freedom.

39. (New) The positioning system of claim 37, wherein the magnetic actuator is an EI core type actuator.

40. (New) The positioning system of claim 39, wherein the first movable base comprises an I component of the EI core type actuator.

41. (New) An exposure apparatus, comprising:

a wafer stage having a surface to retain a wafer;

a first flexible member that connects the wafer stage to a first movable base, the first flexible member being rigid to movement in at least one degree of freedom perpendicular to the surface, and flexible in other degrees of freedom;

a support structure that supports the first movable base; and

at least one magnetic actuator that actuates the first movable base in the one degree of freedom.

42. (New) The positioning system of claim 41, wherein the support structure permits movement of the first movable base in said one degree of freedom.

43. (New) The positioning system of claim 41, wherein the magnetic actuator is an EI core type actuator.

44. (New) The positioning system of claim 43, wherein the first movable base comprises an I component of the EI core type actuator.